COMPLIANCE COMPONENT

Revised 09-19-05

DEFINITION	
Name	Markup Language Checking
Description	There are tools and methods available to assist Web (content) developers in creating valid HTML/XHTML in accordance with W3C standards.
Rationale	Markup languages are not rendered the same in all Web browsers. Some browsers are more tolerant of invalid code where others ignore the code.
Benefits	Valid HTML/XHTML will make the State of Missouri Web sites useable to the widest possible audiences. Additional benefits include: • Using HTML validation tools speeds up the process of checking your code • Validating your code to current standards will prepare your Web sites for future compatibility.

ASSOCIATED ARCHITECTURE LEVELS	
Specify the Domain Name	Interface
Specify the Discipline Name	Branding
Specify the Technology Area Name	Usability
Specify the Product Component Name	W3C Markup Language Validation Service, WDG HTML Validator, Web Developer Toolbar (Firefox), AIS Web Accessibility Toolbar (Internet Explorer)

COMPLIANCE COMPONENT TYPE	
Document the Compliance Component Type	Standard
Component Sub-type	

COMPLIANCE DETAIL	
State the Guideline, Standard or Legislation	There are eleven major requirements for XHTML that are not in HTML. **1. You must use a proper DTD.** Each XHTML page should have a Document Type Definition (DTD or Doctype) as the first line of the page. There are three types: • The *XHTML Strict DTD* includes all elements and attributes that have not been deprecated or do not appear in frameset documents. For documents that use this DTD, use this document type declaration: <!DOCTYPE HTML PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd"> • The *XHTML Transitional DTD* includes everything in the strict DTD plus deprecated elements and attributes (most of which concern visual presentation). For documents that use this DTD, use this document type declaration: <!DOCTYPE HTML "-//W3C//DTD XHTML 1.0 Transitional//EN" http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

- The *XHTML Frameset DTD* includes everything in the transitional DTD plus frames as well. For documents that use this DTD, use this document type declaration:
  <!DOCTYPE HTML "-//W3C//DTD XHTML 1.0 Frameset//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-frameset.dtd">

2. You must use a proper namespace.
The namespace is an extension of the basic <html> tag found at the top of each old Web page. It follows immediately after the DTD statement, and looks like this:
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en" lang="en">

3. You must declare your content type.
Insert a meta tag in the head of the document, like this:
<meta http-equiv="content-type" content="text/html; charset=ISO-8859-1" />
In this example, the document uses the ISO-8859-1 character set (also known as Latin-1). There are other character sets available if you are coding in other languages or need an internationalized character set.

4. Elements must be properly nested
Wrong: **<i>**Item 1**</i>**
Right: **<i>**Item 1**</i>**

5. You must make all your tags lowercase.
XHTML is case-sensitive. All elements and attributes (tags and properties) must be in lowercase in order to validate.
Here is a valid code example:
<ol class="bigfont"><li onmouseover="doJS">Item 1
Item 2

6. You must quote all attribute values.
You will need to use quotes:
<table cellspacing="0" cellpadding="2" border="1">

7. All attributes require values.
Any attribute that was just a word in HTML will need to have a value declared as well.
HTML: <input type="radio" name="radio1" value="5" selected>
XHTML: <input type="radio" name="radio1" value="5" selected="selected">

8. You must close all tags.
XHTML makes you close those tags:
<p>The quick red fox jumped over the lazy brown dog.</p>
<p>She sells seashells by the seashore.</p>

9. Even empty tags, like <br>.
Tags like <br>, <hr> and <img> do not have a corresponding closing tag (like </br>, </hr>or </img>).
In XHTML, you close the tag by adding a space and a forward slash before the closing >,
like this: <br />, <hr /> and <img />

10. You can't use double dashes in comments.
XHTML only allows a double dash ("—") at the beginning and the end of a comment.
So this is not allowed:
<!--This is a bad comment—no fooling. -->

	11. You need to encode special characters. If you use an ampersand, greater than sign, less than sign or quote ("&", ">", "<" and """, respectively) in your text, you will need to encode them like this: &, >, < and ".
Document Source Reference #	

Compliance Sources			
Name	W3C	*Website*	http://www.w3.org/MarkUp/
Contact Information			
Name	State of MO Standards & Guidelines	*Website:*	http://oa.mo.gov/dmd/ guidelines/index.htm
Contact Information			

KEYWORDS	
List Keywords	Markup Language Checking, HTML, XHTML, DTD, Doctype, Document Type Definition, XHTML Transitional, XHTML Strict, XHTML Frameset, Namespace, HTML Validation, HTML Validator, Web browsers

COMPONENT CLASSIFICATION				
Provide the Classification	☐ *Emerging*	☒ *Current*	☐ *Twilight*	☐ *Sunset*
Sunset Date				

COMPONENT SUB-CLASSIFICATION		
Sub-Classification	Date	Additional Sub-Classification Information
☐ *Technology Watch*		
☐ *Variance*		
☐ *Conditional Use*		

Rationale for Component Classification	
Document the Rationale for Component Classification	

Migration Strategy	
Document the Migration Strategy	

Impact Position Statement	
Document the Position Statement on Impact	

CURRENT STATUS				
Provide the Current Status	☐ *In Development*	☐ *Under Review*	☒ *Approved*	☐ *Rejected*

AUDIT TRAIL			
Creation Date	07/08/2005	*Date Approved / Rejected*	9/27/05
Reason for Rejection			
Last Date Reviewed		*Last Date Updated*	
Reason for Update			